



## Material Safety Data Sheet

## Sealed Lead Acid – AGM Type

The information and recommendations below are believed to be accurate at the date of preparation. Ascent Battery makes no warranty of merchantability or any other warranty, express or implied, with respect to such information and we assume no liability resulting from its use. This MSDS sheet provides guidelines for safe use and handling of the product. It does not and cannot advise all possible situations. Your specific use of this product should be evaluated to determine if additional precautions must be taken.

<b>Company</b>	Ascent Battery Supply, LLC	<b>Emergency Number</b>	INFOTRAC (800) 535-5053
<b>Address</b>	Ascent Battery Supply, LLC 925 Walnut Ridge Dr. Hartland, WI 53029	<b>Overseas Emergency Number</b>	INFOTRAC (800) 535-5053
<b>Revision Date</b>	08/22/05		

### SECTION 1 – IDENTITY

<b>Product Name</b>	Sealed Lead Acid Battery
<b>Common</b>	
<b>Synonyms</b>	SLA, VRLA, AGM, Sealed Recombinant
<b>DOT Description</b>	Wet Battery, non-spillable
<b>Chemical Name</b>	Sealed Lead Acid; Secondary Battery Battery

### SECTION 2 – HAZARDOUS INGREDIENTS

Chemical Name	CAS No.	Percentage %
Lead	7439-92-1	50
Lead Dioxide	1309-60-0	21
Lead Sulfate	7446-14-2	1
Sulfuric Acid	7664-93-9	22
Case Material	N/A	6

### SECTION 3 – PHYSICAL AND CHEMICAL CHARACTERISTICS

<b>Boiling Point</b>	NA	<b>Melting Point</b>	Polypropylene > 320° F
<b>Vapor Pressure</b>	NA	<b>Vapor Density</b>	NA
<b>Specific Gravity</b>	Lead, approx. 13	<b>Percent Volatile By Volume</b>	None
<b>Solubility in Water</b>	NA	<b>Reactivity in Water</b>	NA
<b>Appearance and Odor</b>	Rectangular polypropylene or polystyrene case with lead terminals	<b>Evaporation Rate</b>	NA

<b>Flash Point</b>	Polypropylene case 675° F	<b>Flammable Limits in Air % by Volume</b>	NA
<b>Extinguisher Media</b>	Halon, dry chemical	<b>Auto-Ignition Temperature</b>	NA

**Special Fire Fighting Procedures** Extinguish fire with agent suitable for surrounding combustible materials. Cool exterior of battery if exposed to fire to prevent or stop release of lead chemicals and fumes.

**Unusual Fire and Explosion Hazards** None

### SECTION 4 – PHYSICAL HAZARDS

**Stable or Unstable** Stable      **Conditions to Avoid** Electrical shorting the battery.

<b>Incompatibility</b> (Materials to Avoid)	Keep battery clear of strong oxidizers and solvents.
<b>Hazardous Decomposition</b>	NA
<b>Hazardous Polymerization</b>	Will Not Occur

## SECTION 5 – HEALTH HAZARDS

<b>Threshold Limit Value</b>	Permissible exposure limits	Lead	TVL 0.15mg/m <sup>3</sup>	PEL 0.05mg/m <sup>3</sup>
		Sulfuric Acid	TVL 1 mg/m <sup>3</sup>	PEL 1mg/m <sup>3</sup>
<b>Signs and Symptoms of Exposure</b>	Exposure to sulfuric acid, lead, lead dioxide, or lead sulfate may occur if the sealed battery case is damaged. <b>Exposure to lead may include:</b> Chronic over exposure: Tire easily, loss of appetite, irritability, metallic taste, insomnia; toxic to nervous system, kidneys and reproductive system. Acute overexposure: Constipation, vomiting, blue line on gums, weak wrists and ankles, weight loss, yellowish skin. <b>Exposure to sulfuric acid:</b> Chronic over exposures: inhalation-erosion of teeth, inflammation of nose, throat and bronchial tubes. Acute overexposure: Eyes - severe burns, cornea damage, blindness. Skin - severe irritation, burns, ulceration. Inhalation - respiratory irritation, inflammation of bronchial membranes. Ingestion- severe burns of the mouth, throat, esophagus and stomach, damage to kidney and intestinal tract.			
<b>Medical Conditions Generally Caused by Exposure</b>	Respiratory exposure to airborne sulfuric acid will increase damaged to lungs and other pulmonary conditions. Harmful effects of lead are increased for a person with dietary deficiencies in calcium, iron and zinc.			
<b>Routes of Entry</b>	Skin, Eyes, Swallowing			
<b>Emergency and First Aid Procedures for</b>	Lead and Sulfuric Acid			
<b>1. Inhalation</b>	Get fresh air. If symptoms persist seek medical attention			
<b>2. Eyes and Skin</b>	If a cell ruptures flush, with copious quantities of flowing lukewarm water for a minimum of 15 minutes. Get immediate medical attention for eyes. Wash skin with soap and water. Remove all contaminated clothing.			
<b>4. Ingestion</b>	Ingestion of battery chemicals can be harmful. Call The National Battery Ingestion Hotline (202-625-3333) 24 hours a day, for procedures treating ingestion of chemicals. Do not induce vomiting. Dilute by giving milk and water. Do not give anything by mouth to an unconscious person.			

## SECTION 6 – SPECIAL PROTECTION INFORMATION

<b>Respiratory Protection</b>	If product is involved in fire, it may cause the release of dust and fumes and the use of a face mask is recommended.				
<b>Ventilation</b>	Charge batteries in a well ventated area.	<b>Local Exhaust</b>	NA	<b>Mechanical (General)</b>	NA
<b>Gloves</b>	Use gloves when handling SLA batteries.	<b>Safety Glasses</b>	Always wear safety glasses when working with batteries and cells.		

## SECTION 7 – SPECIAL PRECAUTIONS – SPILL AND LEAKAGE PROCEDURES

<b>Storing Procedures</b>	Store in dry and ventilated area.
<b>Other Precautions</b>	Do not store in air tight container. Do not allow metal or other conductive materials to short circuit terminals
<b>Steps if chemicals are spilled</b>	Will not occur unless case is damaged or vents. Pick up and place in materials in container. Neutralize sulfuric acid with lime, soda ash or sodium bicarbonate.
<b>Waste Disposal</b>	Batteries must be recycled.
<b>Transportation</b>	Considered to be "Wet Batteries" but are non-spillable. All of our lead acid batteries are unregulated by DOT for transoprtation by truck, rail, ocean and air transportation because they meet the requirements of 49 CFR 173.159 (d). The only transportation requirements are : 1) The battery must be securely packaged in such a way to prevent the possibility of short circuiting. 2) The battery and the outer most packaging must be labeled "NONSPILLABLE" or "NONSPILLABLE BATTERY".